

WHAT IS CLAIMED IS:

1. An information security system comprising:
 plural information resources distributed amongst and executable on one or more
 servers coupled via a communication network to a client entity, the plural
 information resources having associated trust level requirements;
 a gatekeeper interposed between the client entity and the information resources;
 and
 a credential gathering service common to the plural information resources,
 wherein upon receipt of a first request for access to a first of the plural
 information resources without prior authentication to a sufficient trust
 level, the gatekeeper redirects the first request to the common credential
 gathering service and the common credential gathering service obtains a
 login credential for the client entity in accordance with a mapping rule
 establishing a correspondence between the sufficient trust level and a set
 of suitable credential types.
2. An information security system, as recited in claim 1,
 wherein the first request without prior authentication includes an initial request
 for access to the first information resource.
3. An information security system, as recited in claim 1,
 wherein the first request without prior authentication includes a subsequent
 request for access to the first information resource, the subsequent request
 for access requiring a higher trust level than an initial access request.
4. An information security system, as recited in claim 1,
 wherein upon receipt of a second request for access to a second of the plural
 information resources, the second request is serviced without redirection
 to the credential gathering service, the second information resource having

5 a trust level requirement no greater than that of the first information
6 resource.

1 5. An information security system, as recited in claim 1,
2 wherein the correspondence established by the mapping rule is a function of
3 session environment information.

1 6. An information security system, as recited in claim 5,
2 wherein the session environment information includes one or more of connection
3 speed, source domain, HTTP environment information, browser type,
4 authentication type, request method, MIME typing, user agent, referrer
5 identity, date and time.

1 7. A credential gathering service providing a single sign-on for sessions that
2 potentially include access to plural information resources having differing security
3 requirements, the credential gathering service comprising:
4 an input port configured to receive an access request identifying an initiating
5 client entity;
6 means for associating a trust level requirement with the access request;
7 an encoding of correspondence between trust levels and credential types;
8 selection logic for selecting in accordance with the encoding, a credential type
9 corresponding to the trust level requirement; and
10 a credential obtaining interface for requesting and receiving a credential of the
11 selected credential type for the initiating client entity.

1 8. A credential gathering service as in claim 7,
2 wherein the credential obtaining interface is with the initiating client entity.

1 9. A credential gathering service as in claim 7,
2 wherein the credential obtaining interface is with a credentialing authority.

1 16. A credential gathering service as in claim 7,
2 wherein the trust level requirement is supplied by the initiating client entity.

1 17. A credential gathering service as in claim 7,
2 wherein the initiating client entity is one of an application and a user.

1 18. A credential gathering service as in claim 7,
2 wherein the credential types include at least two of passwords, certificates,
3 username/password pairs, one time passwords, biometric indicia, and
4 smart cards.

1 19. A credential gathering service as in claim 7,
2 wherein more than one credential type corresponds to a given trust level.

1 20. A credential gathering service as in claim 7,
2 wherein the correspondence between trust levels and credential types is dynamic
3 and the encoding thereof is updateable.

1 21. A credential gathering service as in claim 7,
2 wherein the set of credential types and corresponding trust levels is dynamic and
3 the encoding thereof is updateable.

1 22. The credential gathering service of claim 7, encoded in a machine readable
2 medium as software executable in a networked computing environment to provide the
3 plural information resources with the single sign-on.

1 23. The credential gathering service of claim 22, wherein the machine readable
2 medium is selected from the set of a disk, tape or other magnetic, optical, or electronic
3 storage medium and a network, wired, wireless or other communications medium.

1 24. A method of providing a single sign-on for plural information resources, the
2 method comprising:
3 associating credential types with trust levels;

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4 specifying for each information resource, required ones of the trust levels for
 5 accesses thereto;
 6 obtaining at least one credential corresponding to a client entity and
 7 authenticating the client entity thereby; and
 8 permitting access to any of the information resources having a specified trust level
 9 requirement commensurate with the trust level associated with the
 10 authenticated at least one credential.

25. A method, as recited in claim 36, further comprising:
 2 denying access to any of the information resources having a specified trust level
 3 requirement greater than with the trust level associated with the
 4 authenticated at least one credential.

26. A method, as recited in claim 36, further comprising:
 2 for access to any of the information resources having a specified trust level
 3 requirement greater than the trust level associated with the authenticated at
 4 least one credential, obtaining at least one additional credential
 5 corresponding to a client entity and authenticating the client entity
 6 thereby;
 7 the at least one additional credential having an associated trust level
 8 commensurate with specified trust level requirement.

27. A method, as recited in claim 36,
 2 wherein the credentials types include at least two of passwords, certificates,
 3 username/password pairs, one time passwords, biometric indicia, and
 4 smart cards.

28. A method of providing sign-on in a networked information environment, the
 2 method comprising:
 3 directing a request for access to a first information resource from an insufficiently
 4 authenticated client entity to a credential gathering service;

2 wherein the associating is a function of at least resource identifier and
3 environment information.

1 36. A method of providing a security interface common to plural information
2 resources, the method comprising:
3 associating credential types with trust levels;
4 specifying for each information resource, a required one of the trust levels for
5 accesses thereto;
6 with a login service common to the plural information resources, obtaining at
7 least one credential corresponding to a client entity and authenticating an
8 identity of the client entity thereby;
9 granting or denying access to a first of the information resources based on
10 correspondence between the required trust-level therefor and an
11 authenticated trust level associated with the obtained at least one
12 credential; and
13 granting or denying access to a second of the information resources based on
14 correspondence between the required trust-level therefor and the
15 authenticated trust level.

1 37. A method, as recited in claim 36,
2 wherein the at least one credential is selected from a set of credential types with
3 associated authentication modules.

1 38. A method, as recited in claim 36,
2 wherein differing trust levels are required for access to the first and second
3 information resources.

5 associating a first trust level requirement with the access to the first information
6 resource;
7 selecting from plural credential types, a credential type having an associated trust
8 level commensurate with the first trust level requirement;
9 obtaining a credential of the selected credential type for the client entity; and
10 authenticating the obtained credential.

1 29. A method, as recited in claim 28, the method further comprising:
2 proxying the access request upon successful completion of the authenticating.

1 30. A method, as recited in claim 28, the method further comprising:
2 supplying a cryptographically secured session token to the client entity based on
3 the authenticated credential.

1 31. A method, as recited in claim 28, the method further comprising:
2 after successful completion of the authenticating, proxying a second access
3 request without additional authentication.

1 32. A method, as recited in claim 31,
2 wherein the second access request is directed to the first information resource.

1 33. A method, as recited in claim 31,
2 wherein the second access request is directed to a second information resource, a
3 second trust level requirement associated with access thereto being no
4 greater than the first trust level requirement.

1 34. A method, as recited in claim 28,
2 wherein the associating is by a mapping rule encoded as one or more of a static or
3 dynamic table, a hierarchy of predicates, weighted logic and fuzzy sets.

1 35. A method, as recited in claim 28,